



UNITED STATES PATENT AND TRADEMARK OFFICE

Ech

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/761,074	01/16/2001	Geert Arnout Awater	8-35	5052
34871	7590	06/02/2005	EXAMINER	
AGERE SYSTEMS INC. FOUR CONNELL DRIVE BERKELEY HEIGHTS, NJ 07922-2747			KADING, JOSHUA A	
			ART UNIT	PAPER NUMBER
			2661	
DATE MAILED: 06/02/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/761,074

Applicant(s)

AWATER ET AL.

Examiner

Joshua Kading

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-18 and 20-46 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-10 and 20-22 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 11-18, and 23-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 39-46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 39-46, specifically claim 39, are vague and indefinite because claim 39 discloses "a method...comprising...means for..." It is unclear if applicant intends for claims 39-46 to be directed towards a method claim or towards an apparatus claim. It should be further noted that although the claim language is indefinite with regard to whether the claim is directed towards a method or an apparatus, the following art rejections can be used for both the method scenario and the apparatus scenario.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 7, 11-17, 23-29, and 31-46 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,600,726 B1, Nevo et al. (Nevo).

Regarding claims 1, 14, 26, 31, and 39, Nevo discloses a device (claim 1), a method (claim 14), and communication apparatus (claim 26) comprising "a first radio system operating at a first range of frequencies (*figure 10 where the Bluetooth system is on radio system where as seen in the figure the Bluetooth system operates over a set of hopping frequencies*) and a second radio system operating at a second range of frequencies (*figure 10 where the 802.11 is a second radio system where as seen in the figure the 802.11 operates at a given range of frequencies specified by the vertical axis*); a controller adapted to control said first radio system and said second radio system such that only one of said first radio system and said second radio system may transmit at any one time (*figure 5, element 500 is used to control the transmission of data as depicted in figure 10 with the combined radio systems*); a multiplexer adapted to time multiplex transmissions from said first radio system and said second radio system based on a timing of a synchronous connection-oriented connection of said first radio system (*figure 10 shows the final product of time multiplexing circuit used with the two radio systems; this is further supported in col. 5, lines 21-26 where the multiplexing is in reference to the transmission/receiving state of each radio system; further it is inherent in a Bluetooth system that uses the time division multiplexing, as in Nevo, to utilize SCO connections as a means of transmitting data because Bluetooth technology uses the SCO connections for synchronous data transmission*); wherein at least a part of said

Art Unit: 2661

first range of frequencies and said second range of frequencies overlap (*figure 10 shows that each radio system occupies a given range of frequencies as seen on the vertical axis, thus these systems have frequency ranges that overlap; further, it is inherent through standards of communication that Bluetooth and 802.11 both operate within the 2.4GHz frequency range*)."

Regarding claims 2, 15, 27, 33, and 41, Nevo further discloses, "said first radio system is a Bluetooth system and said second radio system is an IEEE 802.11 system (*figure 10*)."

Regarding claims 4, 17, and 29, Nevo further discloses, "when said first radio system is receiving said second radio system cannot receive or transmit (*figure 10 where it is clear that neither system can receive and transmit when the other is transmitting*)."

Regarding claims 7, 35, and 43, Nevo further discloses, "said controller comprises a multiplexer adapted to time multiplex transmissions from said Bluetooth system and said IEEE 802.11 system, said IEEE 802.11 and said Bluetooth transmissions being multiplexed into Bluetooth time-slots (*figures 5 and 10 where the controller of claim 5 operates to multiplex the two systems into a single transmission, this is further supported in col. 5, lines 21-26*)."

Regarding claims 11, 23, 36, and 44, Nevo further discloses, "said controller prevents transmission of IEEE 802.11 packets during a Bluetooth ACL packet transmission (*figure 10 as seen only one system at a time can transmit when the systems are multiplexed together as shown*)."

Regarding claims 12, 24, 37, and 45, Nevo further discloses, "said controller prevents transmission of Bluetooth ACL packets during an IEEE 802.11 packet transmission (*figure 10 as seen only one system at a time can transmit when the systems are multiplexed together as shown*)."

Regarding claims 13, 25, 38, and 46, Nevo further discloses, "said first radio system and said second radio system share a common physical layer (*figure 13, element 1303*)."

Regarding claims 3, 16, 28, 34, and 42, Nevo further discloses, "when said first radio system is transmitting said second radio system cannot receive or transmit (*figure 10 as seen only one system at a time can transmit when the systems are multiplexed together as shown and when one system is transmitting the other cannot receive*)."

Regarding claims 32 and 40, Nevo further discloses, "said schedule is software programmable (*col. 3, lines 8-18 where the invention is directed towards computer based telecommunications and is operated using software*)."

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 18, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nevo et al.

Regarding claims 5, 18, and 30, Nevo explicitly lacks "a switch adapted to switch on and off said first and second radio systems." Although Nevo does not disclose a switch to turn the first and second radio systems on and off, it is well known in the art the electronic devices, such as wireless communication devices, contain on/off switches (i.e. power buttons). It would have been obvious to one of ordinary skill in the art at the time of invention to include an on/off switch for the purpose of turning the device on and off. The motivation for turning a device on and off is, for instance, to conserve battery life when it is not in use.

***Allowable Subject Matter***

7. Claims 8-10 and 20-22 are allowed as previously indicated.

***Response to Arguments***

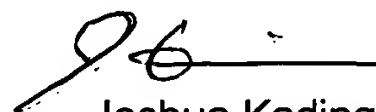
Art Unit: 2661

8. Applicant's arguments with respect to claims 1-5, 7, 11-18, and 23-30 have been considered but are moot in view of the new ground(s) of rejection.

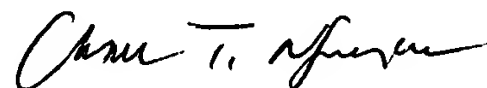
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Joshua Kading  
Examiner  
Art Unit 2661

May 24, 2005



CHAU NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600